Agency for Healthcare Research and Quality
Advancing Excellence in Health Care

NATIONAL QUALITY MEASURES CLEARINGHOUSE

General

Title

Dental care: percentage of children enrolled in two consecutive years who received at least one dental service in both years who received a comprehensive or periodic oral evaluation as a dental service in both years.

Source(s)

American Dental Association (ADA). Dental Quality Alliance user guide for measures calculated using administrative claims data, version 2.0. Chicago (IL): Dental Quality Alliance (DQA); 2016 Jan 1. 27 p. [26 references]

American Dental Association (ADA). DQA measure specification sheet: care continuity. Chicago (IL): Dental Quality Alliance (DQA); 2013 Jul 19. 8 p.

Measure Domain

Primary Measure Domain

Clinical Quality Measures: Process

Secondary Measure Domain

Does not apply to this measure

Brief Abstract

Description

This measure is used to assess the percentage of children enrolled in two consecutive years who received at least one dental service in both years who received a comprehensive or periodic oral evaluation as a dental service in both years.

Note:

This measure is reported at the "dental" services level. The measure specification can be adapted to include the option to report separate rates for "oral health" services and for "dental OR oral health" services.
Services provided by a dental hygienist would only be counted as a "dental" service if those services are provided under the supervision of a dentist. Services provided by independently practicing dental hygienists and other such providers would be classified as "oral health" services.
The measure can be used for children under age 21 when reporting for Medicaid program. For use within the context of the Public

Marketplace, under age 19 will apply.

Rationale

Dental caries is the most common chronic disease in children in the United States. In 2009 to 2010, 14% of children aged 3 to 5 years had untreated dental caries. Among children aged 6 to 9 years, 17% had untreated dental caries, and among adolescents aged 13 to 15, 11% had untreated dental caries. Identifying caries early is important to reverse the disease process, prevent progression of caries, and reduce incidence of future lesions. Approximately three quarters of children younger than age 6 years did not have at least one visit to a dentist in the previous year.

Evidence for Rationale

American Dental Association (ADA). DQA measure specification sheet: care continuity. Chicago (IL): Dental Quality Alliance (DQA); 2013 Jul 19. 8 p.

Dye BA, Li X, Thornton-Evans G. Oral health disparities as determined by selected healthy people 2020 oral health objectives for the United States, 2009-2010. NCHS Data Brief. 2012 Aug;(104):1-8. PubMed

Edelstein BL, Chinn CH. Update on disparities in oral health and access to dental care for America's children. Acad Pediatr. 2009 Nov-Dec;9(6):415-9. PubMed

National Center for Health Statistics. Healthy People 2010 final review. Hyattsville (MD): National Center for Health Statistics; 2012. 560 p.

Primary Health Components

Dental care; dental caries; oral evaluation; continuity of care; children; adolescents

Denominator Description

Unduplicated number of children enrolled in two consecutive years who received a dental service in both years (see the related "Denominator Inclusions/Exclusions" field)

Numerator Description

Unduplicated number of enrolled children who received a comprehensive or periodic oral evaluation as a dental service in both years (see the related "Numerator Inclusions/Exclusions" field)

Evidence Supporting the Measure

Type of Evidence Supporting the Criterion of Quality for the Measure

A clinical practice guideline or other peer-reviewed synthesis of the clinical research evidence

One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

Additional Information Supporting Need for the Measure

Oral health is essential to the general health and well-being of all Americans. Poor oral health can have a significant impact on children's overall health, growth and development, and learning. Between 1990 and 2009, Medicaid dental expenditures grew from $756.1 million to $7.1 billion, or from 2.4% to 7.0% of total dental expenditures.

According to the Centers for Disease Control and Prevention (CDC), dental caries remains the most common chronic disease of children aged 5 to 17 years—4 times more common than asthma (59% versus 15%). Ten million United States (U.S.) school age children have untreated decay, and there are profound disparities by race, socioeconomic status and geographic location. The National Health and Nutrition Examination Survey (NHANES) conducted between 1999 and 2004 shows that one in four children aged 2 to 5 years had one or more teeth affected by dental caries (untreated or filled, excluding missing teeth) and one in two children are affected by age 6 to 11 years. One in ten children aged 6 to 8 have dental caries in the permanent dentition (untreated or filled, excluding missing teeth) and one in two children are affected by age 12 to 15 years.

Data collected by the Centers for Medicare and Medicaid Services (CMS) indicate a lack of utilization of care at younger ages, lack of early prevention, and lack of adequate use of effective preventive modalities underscoring the need for improvement.

Evidence for Additional Information Supporting Need for the Measure

American Dental Association (ADA). Pediatric oral health quality and performance measures concept set: achieving standardization and alignment. Chicago (IL): Dental Quality Alliance (DQA); 2012. 24 p.

Centers for Disease Control and Prevention, U.S. Department of Health and Human Services. Preventing chronic diseases: investing wisely in health: preventing dental caries with community programs. Atlanta (GA): Centers for Disease Control and Prevention; 2010.

Centers for Medicare & Medicaid Services. Annual EPSDT participation report, fiscal year: 2010. Baltimore (MD): Centers for Medicare & Medicaid Services; 2013. 153 p.

Centers for Medicare & Medicaid Services. National health expenditure data. [internet]. Baltimore (MD): Centers for Medicare & Medicaid Services; 2012.

Dye BA, Tan S, Smith V, Lewis BG, Barker LK, Thornton-Evans G, Eke PI, BeltrÃin Aguilar ED, Horowitz AM, Li CH. Trends in oral health status: United States, 1988-1994 and 1999-2004. Vital Health Stat 11. 2007 Apr;(248):1-92. PubMed

Jackson SL, Vann WF, Kotch JB, Pahel BT, Lee JY. Impact of poor oral health on children's school attendance and performance. Am J Public Health. 2011 Oct;101(10):1900-6. PubMed

U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Healthy People 2010. [internet]. Rockville (MD): U.S. Department of Health and Human Services; 2010.

U.S. Department of Health and Human Services. Oral health in America: a report of the Surgeon General. Rockville (MD): U.S. Department of Health and Human Services, National Institute of Dental and Craniofacial Research, National Institutes of Health; 2000 Sep. 308 p.

Extent of Measure Testing

In 2012, the Dental Quality Alliance (DQA) proposed a Starter Set of Pediatric Oral Health Performance Measures that could be calculated using administrative data. A multidisciplinary research team at the University of Florida was selected to conduct feasibility, reliability and validity testing of the measures through a competitive request for proposal (RFP) process. Testing processes followed guidance on quality measure scientific acceptability from the National Quality Forum.

For additional details regarding measure testing, including methodology and outcomes, refer to *Testing Pediatric Oral Health Performance Measures in the Florida and Texas Medicaid and CHIP Programs* (see also the "Companion Documents" field).

Evidence for Extent of Measure Testing

Dental Quality Alliance. Dental Quality Alliance measure activities. [internet]. Chicago (IL): Dental Quality Alliance; 2013 [accessed 2013 Jul 28].

Dental Quality Alliance. Request for proposals to establish feasibility, reliability and validity of implementation of claims based pediatric oral health measures developed by the Dental Quality Alliance. Chicago (IL): Dental Quality Alliance; 2012.

Herndon JB. Testing pediatric oral health performance measures in the Florida and Texas Medicaid and CHIP programs. Chicago (IL): Dental Quality Alliance (DQA); 2013 Aug. 25 p.

State of Use of the Measure

State of Use

Current routine use

Current Use

not defined yet

Application of the Measure in its Current Use

Measurement Setting

Managed Care Plans

Professionals Involved in Delivery of Health Services

not defined yet

Least Aggregated Level of Services Delivery Addressed

Single Health Care Delivery or Public Health Organizations

Statement of Acceptable Minimum Sample Size

Unspecified

Target Population Age

- Age less than 21 years for Medicaid programs
- Age less than 19 years for Public Marketplaces

Target Population Gender

Either male or female

National Strategy for Quality Improvement in Health Care

National Quality Strategy Aim

Better Care

National Quality Strategy Priority

Health and Well-being of Communities
Prevention and Treatment of Leading Causes of Mortality

Institute of Medicine (IOM) National Health Care Quality Report Categories

IOM Care Need

Staying Healthy

IOM Domain

Effectiveness

Equity

Data Collection for the Measure

Case Finding Period

The reporting year

Denominator Sampling Frame

Enrollees or beneficiaries

Denominator (Index) Event or Characteristic

Encounter

Patient/Individual (Consumer) Characteristic

Denominator Time Window

not defined yet

Denominator Inclusions/Exclusions

Inclusions
Unduplicated number of children enrolled in two consecutive years who received a dental service in both years

Note:

Child is continuously enrolled for at least 180 days in each year (i.e., 180 days in the reporting year AND 180 days in the prior year). Continuous enrollment for measures with 180 day (6 month) enrollment criteria requires that there be no gap in coverage.
Check if subject received any dental service in the reporting year AND the prior year:
Service Code = D0100 - D9999 in the reporting year AND the prior year and;
Provider Taxonomy Code = any of the National Uniform Claim Committee (NUCC) maintained Provider Taxonomy Codes in Table 2 of the original measure documentation in the reporting year AND the prior year.

Refer to the original measure documentation for codes and additional information.

Exclusions

Individuals not eligible for dental benefits.
If age criterion is not met or there are missing or invalid field codes (e.g., date of birth), the enrollee does not get counted in the denominator.
All claims with missing or invalid Service Code, missing or invalid NUCC maintained Provider Taxonomy Codes, or NUCC maintained Provider Taxonomy Codes that do not appear in Table 1 of the original measure documentation should be excluded.

Exclusions/Exceptions

not defined yet

Numerator Inclusions/Exclusions

Inclusions
Unduplicated number of enrolled children who received a comprehensive or periodic oral evaluation as a dental service in both years

Note: Check if subject received oral evaluation as a dental service in each year:

Service Code = D0120 or D0150 or D0145 in the reporting year AND in the prior year
At least one claim for oral evaluation in the reporting year AND in the prior year must be with a provider whose Provider Taxonomy Code = any of the National Uniform Claim Committee (NUCC) maintained Provider Taxonomy Codes in Table 1 of the original measure documentation.

Refer to the original measure documentation for codes and additional information.

Exclusions
Unspecified

Numerator Search Strategy

Fixed time period or point in time

Data Source

Administrative clinical data

Type of Health State

Does not apply to this measure

Instruments Used and/or Associated with the Measure

Unspecified

Computation of the Measure

Measure Specifies Disaggregation

Does not apply to this measure

Scoring

Rate/Proportion

Interpretation of Score

Desired value is a higher score

Allowance for Patient or Population Factors

not defined yet

Description of Allowance for Patient or Population Factors

The Dental Quality Alliance (DQA) encourages the measure results to be stratified by the following:

- Age
- Race
- Ethnicity
- Geographic location
- Socioeconomic status
- Payer type
- Program/plan type

Such stratifications will enable implementers to identify variations in care by child and program characteristics, which can be used to inform quality improvement initiatives.

To stratify the measure results, the denominator population is divided into different subsets based on different characteristics of interest (e.g., age, race/ethnicity, geographic location, etc.) and the rates are

reported for each sub-population.

Standard of Comparison

not defined yet

Identifying Information

Original Title

Care continuity (DEN 2).

Measure Collection Name

Dental Caries in Children: Prevention & Disease Management

Submitter

Dental Quality Alliance - Health Care Quality Collaboration

Developer

Dental Quality Alliance - Health Care Quality Collaboration

Funding Source(s)

The Dental Quality Alliance with support from the American Dental Association Foundation

Composition of the Group that Developed the Measure

Dental Quality Alliance (DQA)

Financial Disclosures/Other Potential Conflicts of Interest

To ensure that a collaborative and balanced approach is followed, the Dental Quality Alliance (DQA) requests that all individuals nominated to the Research & Development (R&D) Committee and its Workgroups complete a standard conflict of interest form.

Disclosed conflicts are not confidential. Unless the individual is disqualified to serve, his or her disclosures will be shared with the other members and be published with the report. Disclosure allows the DQA to maintain a transparent process and convene a balanced group.

For additional information on conflict of interest procedures, refer to *Procedure Manual for Performance Measure Development: A Voluntary Consensus Process* (see also the "Companion Documents" field).

Adaptation

This measure was not adapted from another source.

Date of Most Current Version in NQMC

2013 Jul

Measure Maintenance

Annual

Date of Next Anticipated Revision

Unspecified

Measure Status

This is the current release of the measure.

The measure developer reaffirmed the currency of this measure in April 2016.

Measure Availability

Source available from the American Dental Association (ADA) Web site .

For more information, contact ADA at 211 E. Chicago Ave, Chicago, IL 60611; Phone: 312-440-2500; Web site: www.ada.org .

Companion Documents

The following are available:

American Dental Association (ADA). Procedure manual for performance measure development: a voluntary consensus process. Chicago (IL): Dental Quality Alliance (DQA); 2013 Apr 23. 36 p.
Herndon JB. Testing pediatric oral health performance measures in the Florida and Texas Medicaid and CHIP programs. Chicago (IL): Dental Quality Alliance (DQA); 2013 Aug. 25 p.

NQMC Status

This NQMC summary was completed by ECRI Institute on February 26, 2014. The information was verified by the measure developer on April 4, 2014.

The information was reaffirmed by the measure developer on April 28, 2016.

Copyright Statement

Production

Source(s)

American Dental Association (ADA). Dental Quality Alliance user guide for measures calculated using administrative claims data, version 2.0. Chicago (IL): Dental Quality Alliance (DQA); 2016 Jan 1. 27 p. [26 references]

American Dental Association (ADA). DQA measure specification sheet: care continuity. Chicago (IL): Dental Quality Alliance (DQA); 2013 Jul 19. 8 p.

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